## REMARKS

Claims 7 and 52-55 are under examination and have been rejected. These claims have been amended in order to expedite prosecution.

Claims 19, 34, 40 and 47 have been canceled and claims 18, 33, 38, 39, 41 and 46 have been amended to preserve dependency on the limitations of the product claims for purposes of possible later rejoinder should the product claims ultimately be deemed allowable.

New claims 56–62 are added by amendment herein.

In amending or canceling claims, Applicant reserves the right to pursue the claims as filed or claims of differing scope in this or future application. In addition, Applicant respectfully submits that no new matter is introduced by any of these amendments and the new claims. Applicant requests reconsideration of the application and the amended claims and examination of the newly presented claims in light of the following remarks.

### Objection to the Specification

The specification was objected to for inclusion of an embedded hyperlink at page 3, line 4. In response, Applicant has amended the specification to delete this hyperlink and to recite, in its place, just the website being referred to.

### Rejection Under 35 U.S.C. §112, First Paragraph

Claims 52-55 were rejected under section 112, paragraph 1, as failing to comply with the written description requirement. The rejection is based on the fact that the claimed polypeptides are described only in terms of sequence with specified sequence

identities but recite no particular function or other criteria for identification. In addition, the claims encompass immunogenic fragments with similar sequence identities.

In response, Applicant has amended claim 52, and thereby the claims dependent from it, to recite that the isolated polypeptide binds to a retrovirus. This limitation is supported throughout the specification, especially at page 15, lines 4-11 and page 23, lines 16-20 Thus, amended claim 52 adds no new matter.

In light of the amendments which recite a particular distinguishing feature or biologic activity of the polypeptides, the rejection to these claims is now obviated. In particular, the polypeptides in claims 52 to 55 are polypeptides that bind to a retrovirus. Hence, the immunogenic fragments thereof are limited to fragments that react with an antibody that is specific for these retrovirus binding polypeptides or fragments that will elicit the production of antibodies specific to these retrovirus binding polypeptides. The claims are amended solely to expedite prosecution and not in acquiescence to the rejection. Applicant requests reconsideration and withdrawal of rejection 35 U.S.C. §112, first paragraph.

**Rejection Under 35 U.S.C. §102**

Claim 7 was rejected under section 102(a) as anticipated by a sequence alignment of SEQ ID NO: 14 (the human PERV-A receptor) with a sequence disclosed by Isogai et al (1 October 2000, Accession No. Q9NWF4 of the SPTREMBL_21 database), which alignment shows sequence identity of 99.8%.

Claims 52-55 were rejected under section 102(a) based on this same reference but as applied to the polypeptide rather than the immunogenic fragments.

Applicant notes that these references were cited under 35 U.S.C. 102(a) because

they have effective dates less than 1 year prior to the Applicant's own priority date of 20 April 2001.

Applicant acknowledges the Examiner's reference to Ota et al (Accession AAB92492, with date of 26 June 2001), which because of its date is not prior art but that the same sequence is contained in European Patent EP1074617-A2 (which claims SEQ ID NO: 10589), which is 2537 pages in length, and that the Examiner has used the Ota et al submission to determine a sequence alignment with 99.8% identity, thus asserting the EP patent as a reference. However, the EP patent has a date of 7 February 2001. Again, this reference would have to be asserted under 102(a) because it is less than 1 year prior to the Applicant's priority date.

In response, Applicant urges that the sequence disclosed by Isogai et al. results from a random demonstration of a molecular technique. No utility or other properties of the sequence in question were cited by Isogai et al. Particularly, there is nothing in Isogai et al suggesting that the polypeptide disclosed therein is a PERV receptor and therefore binds to a retrovirus. Applicant has amended claim 7 to recite a kit for screening a plurality of chemical compounds for ability to block, prevent, inhibit, interfere with, compete with, or otherwise reduce the rate or extent of PERV binding comprising the polypeptide capable of binding to PERV and instructions as to how such screening can be carried out. Since a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or is inherently described, claim 7 as amended, is not anticipated by Isogai et al. Hence, Isogai et al is not a publication which describes the present invention. Applicant contends that the same argument applies to European Patent EO1074617-A2. Support for the amendment can be found throughout the application, especially at page p6 lines 16-20, p 20 lines 4-9 and 23-30, p21 lines 1-3, p22 lines 18-29 and p23 lines 5-14.

Claims 52-55 were rejected under section 102(b) as anticipated by Shoyab et al (U.S. Patent 4,714,683) on grounds that the claims encompass immunogenic fragments

comprising an amino acid sequence with as little as 85% sequence identity to SEQ ID NO: 14. In addition, dependent claims 52-55 recite 90%, 95% and 98% sequence identity, respectively, where 15% difference is about 75 residues.

In response, Applicant first notes that Shoyab et al merely disclose a polypeptide of between 15 to 125 amino acids in length in claim 9 thereof (referred to by the Examiner). Applicant has amended claim 52 to recite that the polypeptide must bind to a retrovovirus, with additional amendments in new claims 56 and 57. These amendments are supported in the application, especially at page 19, lines 15-20. Applicant urges that Shoyab et al do not disclose any polypeptides, or fragments, with this limitation, nor would construction of such be obvious given the disclosure of Shoyab et al, which is directed to tumor inhibitors.

**New Claims**

New dependent claims have been added. Support for these new claims can be found throughout the specification (for example, at page 15, at Table 1, and at page 23 lines 16-19). Applicant believes that no new matter is added by this amendment and requests that the new claims be entered in this application. Applicant also requests that if withdrawn claims 18, 33, 38 and 39 are later rejoined, that new dependent claims 58 to 62 be also allowed and that additional claims to additional percent identities be allowed also.

In view of this amendment, Applicant believes that this ground of rejection has been overcome.

The Commissioner is authorized to charge payment of any fees associated with this communication or credit any overpayment to Deposit Account No. 03-0678.

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**Alan J. Grant, Esq.** **Date**

Respectfully submitted,

Alan J. Grant

Alan J. Grant, Esq.
Reg. No. 33,389

CARELLA, BYRNE BAIN, GILFILLAN,
CECCHI, STEWART & OLSTEIN
Six Becker Farm Road
Roseland, NJ 07068
Phone: 973-994-1700
Fax: 973-994-1744